NIRS Specifications

Brainsight® NIRS

Feature	Brainsight NIRS	Brainsight NIRS-8
Number of detectors	8-32	8
Number of detectors dedicated to proximity measurements	4-16	4
Detector type	Si APD (cortical detectors) Si photodiode (proximity detectors)	Si APD (cortical detectors) Si photodiode (proximity detectors)
Emitter type	Laser diode	Laser diode
Number of source optodes	4-16 (could do 24)	4 (could do 6)
Typical number of channels (source-detector pairs)	72	18
Number of wavelengths per optode	2-3	2-3
Supported wavelengths	705nm 830nm * Other configurations available on demand	705nm 830nm * Other configurations available on demand

Feature	Brainsight NIRS	Brainsight NIRS-8
Sensitivity	< 0.5pW (cortical detectors) < 1pW (proximity detectors)	< 0.5pW (cortical detectors) < 1pW (proximity detectors)
Dynamic range	> 100dB @20Hz (cortical detectors) > 90dB @20Hz (proximity detectors) * Extra 37dB with gain adjustment.	> 100dB @20Hz (cortical detectors) > 90dB @20Hz (proximity detectors) * Extra 37dB with gain adjustment.
Modulation	FDMA	FDMA
Real time data display	Yes	Yes
Maximum power	10mW / wavelength (mean)	10mW / wavelength (mean)
Sampling rate	1-100Hz (up to 64 pairs, 128 pairs @50Hz)	1-100Hz (up to 64 pairs, 128 pairs @50Hz)
Host connection	Ethernet (possibility of multiple clients)	Ethernet (possibility of multiple clients)
Interlock	Yes	Yes
Exported file format	.nirs (HomER)	.nirs (HomER)
Number of auxiliary channels	8 (TTL or analog inputs).	8 (TTL or analog inputs).
Trigger out.	1	1
Auxiliary sampling rate	1-8000Hz	1-8000Hz
Optode height	~7mm	~7mm

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Optical fibre length	3m standard * Custom length on demand.	3m standard * Custom length on demand.